

DoD Space Planning Criteria for Health Facilities

Food Service

5.1.1. PURPOSE AND SCOPE:

This section provides space planning criteria for Food Service Facilities in all type of DoD hospitals worldwide.

5.1.2.1. DEFINITIONS:

Administration - Includes office space for the administrators of the Food Service, their assistants, supervisory personnel, and clerical and technical support personnel. It includes space for private and group patient consultation and food service conference/training/rooms as appropriate.

Cafeteria Serving Facilities - Includes all space and equipment required for foods that can be quickly prepared and served (short order); and the holding and serving of all food and beverages required and so arranged and presented that the patron can make his/her choice of individual items (cafeteria). This includes the cafeteria serving line, short order preparation and serving facility, salad bars, beverage stations, backup units, checker/cashier stations, and access or circulation space related to their use. Also, facilities for the service of therapeutic diets to ambulatory patients are included.

Circulation Space - Includes all space designed to provide circulation among various hospital units including necessary shaft and stairway space. The food service criteria are based on the assumption that all elements of the food service, with specific exception of areas located on nursing floors, are located contiguously on one floor in one block of space. Within this block of space, all necessary circulation has been provided for all elements of the food service, which are contiguous. If any element of the food service is not entered directly from other elements of the food service, traffic aisle and access will be provided from general building "circulation space." It is expected that general building circulation space will connect the following points to the rest of the hospital as public corridor or as space within the food service area:

- Beginning of cafeteria serving line or lines.
- End of patient tray assembly line or point from which carts leave for nursing units.
- The point at which soiled dishes are delivered to the dishwashing area.
- Exits from cafeteria.
- Administrative areas.
- Locker areas.
- Storage areas.

Dining Room - The net floor area for dining tables and chairs, circulation space including access and other aisles, tray stands, and service or busing carts if utilized. Items such as salad bars, condiment and silverware dispensing equipment, and beverage stations, even if located in the dining room area, are included as part of the space allocation for the cafeteria serving facilities. The "dining room" does not include soiled dish collection even if located in the dining room; this function is by definition included in "Sanitation."

Dry Stores - Those food items, which may be stored without refrigeration. In some geographic locations, temperature and humidity control may be required.

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Food Processing and Preparation Facilities - Food processing and preparation includes the total of all activities from the time ingredients are withdrawn from storage until the prepared menu items are brought to point of service. The food processing and preparation areas include the following centers:

- Meat Preparation
- Fruit/Vegetable Preparation
- Pastry Preparation
- Special therapeutic Preparation
- Steam
- Fry
- Grill and Broil
- Baking and Roasting
- Mixing
- Therapeutic Diet Preparation
- Salad Assembly and/or Portioning
- Dessert Assembly and/or Portioning
- Patient Tray Assembly.

Food Service Facilities - For the purpose of these criteria, Food Service Facilities include the space required for the nutritional care of all patients and all individuals authorized to subsist. The criteria provides space for cafeteria service, patient tray service, sanitation, food processing and preparation, ingredient room, receiving and storage facilities, dining room, administration, and staff facilities. These criteria apply only to hospital food service activities financed from appropriated funds.

Frozen Stores - Those food items requiring subzero (-29 degrees C (-20 degrees F)) storage temperatures.

Ingredient Room - An area where specified quantities of dry ingredients, fresh fruits and vegetables, and meat items required for food preparation are weighed, measured, packaged, and assembled according to standardized recipes. This area is optional: except at Navy facilities, prep areas are more commonly located within the kitchen open area.

Nonfood Stores - Those nonfood items/supplies required by food service. Nonfood stores include such items as cleaning agents, disposable dishes, permanent dishware, blank forms, utensils, small equipment, diet kits, etc.

Nourishment Centers/Galleys/Pantries - Dedicated areas on nursing units that are designed and equipped for use by patients. This includes limited, refrigeration, and a microwave and ice making equipment.

Patient Tray Service - Includes all space and equipment required for the online preparation of foods and the holding, and assembly of all food and beverage items for patient nursing units. It includes space for online food preparation equipment, the tray assembly area, backup units, cart storage area, and mechanized assembly system.

Peak Meals - Maximum number of meals (i.e. either breakfast, lunch or dinner) served in a day. Normally, peak meals are the lunch serving, when food is prepared for both inpatient meals and cafeteria/dining meals.

Ration - One ration equals three inpatient meals per day (typically breakfast + lunch + dinner).

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Receiving and Storage Facilities - Includes all functional areas used by food service to receive, inspect, verify, and accept deliveries of food and nonfood supplies, and the storage and issue of these items. Receiving and storage facilities include space required for receiving and storekeeper, dry stores, refrigerated stores, frozen stores, and nonfood storage. A refrigeration equipment (mechanical) room is also included, but is most often located outside; either on the ground on a concrete pad, or on the roof .

Refrigerated Stores - Those food items that must be maintained within an approximate temperature range of 34 degrees - 40 degrees F (1 degree - 4 degrees C). Thawing or tempering of frozen items must also be accomplished within this temperature range.

Sanitation - Includes all space and equipment required for soiled dish collection, dishwashing, central detergent dispensing, storage for clean dishes, soiled pot and pan collection, pot and pan washing, storage of clean pots and pans, trash disposal, janitors' closets, and cart wash.

Scramble System – Instead of a straight food dispensing area, a nontraditional food dispensing area that uses multiple food serving stations. (e.g. Salad Bar, Hot Food Line, Dessert Line, Sandwich Line, and Beverage Island). Sometimes referred to as Scatter system.

Staff Support Facilities - The space required for toilets, showers, lockers, and lounges for both professional and nonprofessional food service staff. It would include any toilet facilities designated for the "Administration" section.

5.1.3. POLICIES:

Criteria have been developed with the objective of providing high quality food service to patients and authorized individuals. At minimum, quality hospital food service is interpreted as nutritious food in sufficient quantity with consideration for regular and therapeutic requirements, prepared in accordance with the highest sanitation standards from standardized recipes; and attractively served at optimum temperatures, within normal or prescribed meal hours, in a pleasant environment and at the allotted costs.

Planning and programming construction or modernization projects involving hospital food service facilities will reflect the "state of the art" equipment and design. Maximum emphasis will also be given to energy conservation measures in the design.

Hospital food service facilities shall be planned to provide the desired quality of food at the lowest life cycle cost. The total cost includes the costs of the building, equipment, labor, energy and utilities, supplies, and depreciation required to support food service, and related activities.

Construction or modernization projects will be planned and developed on the basis of centralizing all food preparation in one location where possible and economically feasible.

If a facility has less than 25 beds, then a dining hall will not be provided without special justification. Regardless of size, all facilities should perform a study to determine if food services are required.

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The following policy statements are listed in relation to the specific facilities to which they apply:

Cafeteria Serving Facilities:

Cafeteria Serving Facilities include all equipment and space required for the short order preparation and holding and serving of all foods and beverages required. In the smallest facilities the cafeteria serving line may be designed with two parallel lines with the tray rails facing each other. The cafeteria serving area may be subdivided to separate regular kitchen prepared and served items; short order prepared and service items; and therapeutic diet items for ambulatory patients.

Depending upon agency policy, a scramble or modified scramble system may be utilized when determined feasible. Self service items such as salads, beverages, and ice cream may be physically removed from the serving lines and be established as separate stations in the cafeteria serving area. At the upper limits of the planning criteria for the cafeteria serving line(s) the scramble system was used in determining the number of square feet.

The method of payment should be determined in advance of designing the serving area: an “a la carte” system, a scramble system, or a point of sale system. An ala carte system places the cashier at the exit of the serving line, since patrons pay item-by-item. A point of sale system, or one price per meal regardless of quantity, allows the cashier to be moved to the entrance of the service line. A scramble system can have cashiers at each area or at the exit of the serving line. The type of system needs to be determined prior to the design layout.

It should be determined if there will be a “take-out” service provided. These patrons need to be discounted from the seating area. It should be determined if take out items are limited to pre-packaged sandwiches, subs and salads, or whether warm meals in Styrofoam clamshells will also be offered. Either way, the amount of additional space will only involve adding an area for an open face merchandiser cabinet.

Refer to Section 5.8 for criteria information regarding food service vendors beyond the full service cafeteria setting, such as area for vendor space (i.e. McDonalds, Starbucks, etc.), vending machines, and grill/snack bar services.

Cafeteria serving facilities and dining rooms should be designed in such a way that the following can be realized:

- a. Entry and exit points will be designed to provide maximum security, control, and accountability. There should be only one entry and one exit point to the serving lines. This enables the cashiers to have better control of patrons.
- b. Compliance with all handicapped accessibility regulations, including the “American Disabilities Act.” Specifically, ensure that 5% of all seating areas accessible; this may require tables that raise and lower, additional floor area, etc.

Patient Tray Service Facilities:

All patients should be served complete meals at acceptable temperature (hot food above 140 degrees F (60 degrees C) and cold food below 45 degrees F (7 degrees C)). These temperatures apply to point of consumption and not the point of assembly. Particular precaution should be taken in this area to provide adequate and convenient backup refrigeration for portioned items so that food items can be replenished frequently and maintained at proper temperatures during assembly. Each agency will have the option of selecting the type of tray service to be used on an individual project basis (i.e., single tray controlled temperature carts, pellet system to retain temperature, mechanical conveyor, bulk food carts, etc.).

Patient tray service facilities are to be designed to serve selective and nonselective regular and therapeutic menus.

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Space for nourishment centers in ward areas is listed below. Refer to Section 4.1 for all other nursing unit criteria.

Facilities shall have the option of either line or carousel equipment for tray service.

Where volume exceeds maximum, then a second line can be established. Hospital lines typically assemble 6 to 9 trays per minute.

Sanitation Facilities:

Dish rooms: Dish rooms should be designed and equipped to provide for the collection of all soiled dishes from dining rooms and nursing units. Adequate access from dining rooms and service elevators must be provided for optimum flow of dishes. Where possible and economically feasible, all dishwashing will be performed in a single centralized area. The dishwashing period should not exceed three hours for any meal.

Cart Holding Space: Holding space of 1/4 the number of food carts must be provided in, or adjacent to, the dishroom. Agency policy may determine whether conveyor belts or dish collecting carts will be used to move dishes from the dining rooms to the dish room.

Dish Machines: Stationary/manual rack type dish machines will be utilized in medical facilities with less than 76 beds, which usually do not have a staff feeding mission. Facilities serving up to 405 peak meals or with 76 - 175 beds may utilize the conveyor type rack machines. A flight type dish machine or conveyor (merry-go-round) type dish machine with blow dryer is authorized for those facilities with more than 175 beds or serving more than 405 peak meals. Agency policy may determine which type of machine(s) will be utilized.

Pot Washing Area: Facilities serving less than 276 peak meals or with less than 126 beds should have dishwashing and pot washing in the same room utilizing a common clean table for the dish machine and clean pot draining and drying. Facilities serving more than 276 peak meals or with more than 126 beds should have a designated alcove close to food preparation for pot and pan washing. An automated pot and pan machine is provided for facilities serving more than 276 peak meals.

Garbage Disposal: Garbage disposals will be provided in the soiled dish collecting table, soiled pot collection table, and fresh fruit & vegetable processing. An automated pot and pan machine is provided for facilities serving more than 276 peak meals.

Trash Compactors: Compacting mechanisms should be provided on outside dumpsters at back docks. If a compactor is provided on the dumpster, the requirement for a compactor in the storeroom may be deleted. Requirements for refrigerated garbage rooms and garbage can washrooms, will require special justification

Pulper Grinder Extractor Systems: Pulper grinder extractor systems are authorized where local environmental laws allow them.

Cart Washing Area: Cart washing area should ideally be located between the dish room and cart storage. The cart wash area can be utilized to wash food carts, dish dispensers, angle ledge racks, and platform trucks.

All medical facilities may have manual cart wash areas or a steam gun area. Facilities with less than 175 beds are not authorized an automatic cart washing machine. Depending upon agency policy, medical facilities with 175 beds or over may have a pass through (automatic) cart wash machine, but may opt to provide a manual cart wash and/or steam gun area.

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Janitor's Closet: Janitor's alcove/closet will be provided in the kitchen and dish room, dining room, serving line and back dock areas. See Section 6.1 for additional information.

Food Processing and Preparation Facilities:

The food processing and preparation facilities operate according to the functional relationship set forth in the definition. Equipment utilized will be specified for the size of the facility to optimize "batch cookery" thereby promoting a high level of food quality. Separate space requirements for each center will not be necessary in all cases. The operational work load will dictate joint utilization of various equipment items. The criteria are based on designs, which maximize use of open areas and minimize the use of walls and partitions to provide flexibility and economy. The centers in food processing and preparation should be established according to the following criteria:

Meat Preparation: Meat processing may be done in all medical facilities. Meat cutting (processing) rooms must be maintained at temperatures not to exceed 55 degrees F (13 degrees C). Normally, portioned meats only are used in facilities with less than 175 beds. Factors influencing agency policy include availability, economy, volume, and quality.

Pastry Preparation: Pastry items can be produced in all medical facilities. Depending on agency policy and availability, some prepared pastry items may be procured locally; however, all kitchens still require a bake prep area.

Therapeutic Diet Preparation: Since the preparation of hot, therapeutic diet food is different from regular hot food preparation, an area of food processing must be allocated. In smaller facilities with 125 beds or less, much of the equipment can be used jointly. For facilities with more than 125 beds, a separately equipped area will be designated for therapeutic diet preparation.

Steam: Since this center is an area where steam is utilized to cook various menu items, it is imperative that an adequate supply of "clean" steam, which contains no boiler treatment compounds, be available. If clean steam is not readily available, equipment, with steam heated coils, shall be provided.

Fry: Conventional fryers with or without automatic basket lifts are utilized in all medical facilities. Pressure fryers should be used in facilities over 175 beds.

Grill and Broil: Conventional griddles and broilers or char-broilers and conveyor broilers are authorized in all medical facilities.

Baking and Roasting: For determining space requirements in the planning criteria, conventional roasting and baking ovens are used. The use of other types of ovens may depend upon agency policy and should be reflected in each agency's equipment authorization tables.

Mixing: Medical facilities are authorized mixers (automatic) with all standard attachments/adapters including the meat grinder, chopper, and interchangeable hubs.

Fresh Fruit and Vegetable Preparation: Space and equipment must be allocated for this center in all medical facilities. Fresh fruit and vegetable processing center is utilized for cleaning, chopping, slicing, dicing, of all fresh fruits and vegetables used in hospital food service. Depending upon agency policy and physical constraints, this center's space allocation may be combined with the ingredient room or combined with the salad assembly and portioning center.

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Salad Assembly and Portioning: Space will be provided in each medical facility for the assembly and portioning of all salads. When ingredients in an already processed state are received from either an ingredient room, subsistence storage area, and/or fresh fruit and vegetable processing center, no major equipment other than a work site (table) will be required. When there is no ingredient room, the space allocated for this center will be combined with the fresh fruit and vegetable center.

Dessert Assembly and Portioning: In all medical facilities that do not prepare pastry items, an equipped area must be allocated for this center. Depending upon physical constraints and layout, medical facilities with less than 175 beds that prepare pastry will use space jointly for dessert assembly and portioning and pastry center or any other feasible area within the food processing and preparation facility.

In medical facilities of 175 beds or greater that prepare pastry, a separately equipped area for dessert assembly and portioning will be provided. This separately equipped area may be included within the pastry center or any other feasible area within the food processing and preparation facility.

Beverage Dispensing: Provide a centralized carbonated beverage dispensing room in all new medical facilities.

Ingredient Room:

Depending upon agency policy, an ingredient room may be utilized to introduce an additional element of control into the total food production process. The ingredient room serves as the coordination link between dry food storage, meat processing, fresh fruit/vegetable processing and actual food production; it should be located so as to facilitate a smooth flow of materials between these functional areas. Generally, the ingredient room works best if it is physically located in conjunction with dry food storage, meat processing, and fresh fruit/vegetable processing. It can also be part of the open kitchen area. The ingredient room must have the capability for holding assembled recipe components in a refrigerated or non-refrigerated environment as required prior to dispatch to the food production area(s). The ingredient room must be equipped with a hot/cold water supply and an appropriate variety of weighing and measuring devices in addition to work table(s), delivery carts, ingredient bins, etc.

Receiving and Storage Facilities:

The receiving and storage facilities will be planned on the basis of the supply system of the agency concerned and should provide for the most economical cost considering purchase prices, freight rates, handling costs, and costs of building and operating storage facilities.

Receiving and storage facilities will be designed to provide maximum security and accountability of inventory items.

Refrigerated units should be constructed and insulated in such a way that they may be converted to frozen storage if the need arises.

A dedicated covered loading dock will be provided. The dock should be located adjacent to the receiving/storekeeper areas and should facilitate easy movement of supply and materials into storage or usage areas. Depending upon agency policy, dock leveling devices may be provided. In certain geographic areas, temperature and humidity controls may be required in dry food storage.

Depending upon agency policy, movable carriage shelving systems may be used in nonfood and dry food storage areas. These systems provide for more efficient use of allocated storage space. Gravity flow shelving may also be used where feasible.

Although nonfood storage provides space for various chemicals, cleaning compounds, and detergents, a separate area (without exceeding total square footage for nonfood storage) should be

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designated for this category of items. Separation will minimize the chance for these potentially hazardous items coming in contact with subsistence supplies or disposable dinnerware.

Dining Room:

The dining room should be designed consistent with the hospital mission, economy, and state-of-the-art in interior furnishings. To the maximum extent feasible, patients are encouraged to eat in the dining room rather than on the nursing unit. The dining room should be located convenient to the hospital traffic flow, contiguous to elevators and main corridor circulation. Depending upon agency policy, the dining room may have windows with a view to the outside environment. Depending upon agency policy, dining rooms may be subdivided into areas for professional staff dining and/or dining/conference room.

Administration:

Space allotted for administration may be subdivided to achieve the best functional design according to agency policy. Offices will be arranged so as to achieve the most efficient use of clerical and receptionist personnel in line with mission or objectives.

Space must be dedicated for private and group patient consultation. The nutrition clinic and weighing/screening/waiting area provided for this purpose is located in the food service administration area. It should be convenient to hospital main corridor circulation so that patient traffic in food service, per se, is minimized. At facilities over 175 beds, a second nutrition clinic and weighing/screening/weighing area is authorized and is in the outpatient clinic.

Food service conference/training rooms may be authorized in hospitals with more than 175 beds, depending upon agency policy. Additionally, hospitals with an education and training mission (i.e., dietetic internship) are authorized a conference/training room.

Staff Facilities:

Staff facilities must be provided to accommodate the total number of individuals (both military and civilian) indicated in the staffing table. Design should be in accordance with agency health and environment regulations and standards. Agency policy may determine the physical location and grouping of staff facilities relative to the remainder of the food service operation. For example, a separate toilet facility may be designated for the administration area as long as total staff facility's space is not exceeded. Also, lockers, toilets, and showers for professional and nonprofessional staff may be located separately. See Section 6 for additional information.

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5.1.4 PROGRAM DATA REQUIRED:

The data shown in the following table is needed by planners for application of the planning criteria and should be developed for both actual experience and planned program:

| | Actual | Planned |
|--|--------|------------|
| Number of Meals Served | | |
| a. Patient Tray Service - Identify 30 peak meals served on the nursing units over a 90-day period. Include meals served to ambulatory patients (same day service) in this amount. | _____ | _____ (1a) |
| b. Main Dining Room and Cafeteria - Identify 30 peak meals served in all dining rooms and cafeterias over a 90 day period. Include “take-out” meals served in this number. | _____ | _____ (1b) |
| c. Total Peak Meals (a. + b. = c.) | _____ | _____ (1c) |
| d. Average Peak Meals (c/30) | _____ | _____ (1d) |
| Number of Rations Served: | | |
| a. The sum of the total number of meals served during any consecutive 30-day period of the previous 12 months. Include “take-out” meals served in this number. | _____ | _____ (2a) |
| b. Average ration (a ration = breakfast meal + lunch meal + dinner meal) served per day. (Above divided by 90) | _____ | _____ (2b) |

When planned program data differ from actual experience data, an explanation should be provided. Examples of such explanations might be that the planned number of meals is based on actual meals served adjusted for a change in the bed capacity of the hospital, or the effect of a new location, or a change in the composition of the patient load. For new (not replacement) hospitals, the explanation may be based on factors from comparable existing facilities. Based upon the previous information, the following program data elements need to be calculated using the indicated formulas.

Patient Trays:

No. of trays to be assembled (3) = Number of patient beds x 75% (non-ambulatory patients.)

Patient Tray Carts:

No. of Carts (4) = Average Peak Meals served by tray service/20 trays per cart.

The number of delivery carts must at least equal the number of nursing units, to ensure one cart per nursing unit.

Seating:

Dining room seats (5)

= Avg. peak meals dining room service (1d, less “take out” meals served)/number of sittings

(See table following):

No. of regular seats = .95 x (5) (5a)

No. of handicapped seats = .05 x (5) (5b)

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The number of sittings for various work loads in the dining room is as follows:

Planned Average Peak Meals:

| <u>Meals Served in Cafeteria</u> | <u>No. of Sittings</u> |
|----------------------------------|------------------------|
| 1 -200 | 1.5 |
| 201 - 400 | 2.0 |
| 401 - 550 | 2.5 |

Serving line:

Will a conventional straight service line be used versus a scramble system?

Will payment be “a la carte”, point of sale, scramble, or any combination of these?

Storage:

Number of weeks (average) for dry food items?

Number of weeks (average) for non-food items?

Number of days (average) for refrigerated food items?

5.1.5. SPACE CRITERIA:

The following criteria have been developed on the basis of the labor, space, and equipment requirements. The criteria is for conventional food service.

Flexibility Incorporated in the Criteria:

The wide variation in systems encountered in the hospitals makes it necessary to use a flexible concept of planning so that all systems, which have merit, can be accommodated within the criteria.

There is no requirement within the criteria that actual designs of food service facilities adhere rigidly to allocations of space by functional units. Space may be shifted from one unit to another to facilitate the development of a good functional design. However, the total space provided in a design for food service facilities should not exceed the sum of the allocations of space set forth below for all of the functional units of food service.

Workload Break Point Criteria:

Based upon a comparison of workload data among the agencies with DoD, the following table was developed as criteria for workload break points in various size medical treatment facilities:

| | | | | | |
|---|---------|---------|---------|---------|----------|
| Constructed Beds in the Medical Treatment Facility | 25-75 | 76-125 | 126-175 | 176-350 | 351-550 |
| Max. Number of Trays Assembled for Nursing Unit Patients at the Peak (Noon) Meal (60% of total beds) | 15-45 | 45-75 | 76-105 | 106-280 | 281-330 |
| Max number of Meals Served in the Dining Room (Noon) Meal | 95-125 | 126-200 | 201-300 | 301-600 | 601-940 |
| Max. Number of Meals Served at the Peak (Noon) Meal | 110-170 | 171-275 | 276-405 | 406-880 | 881-1270 |
| Avg. Number of Rations Served Each Day | 65-125 | 126-190 | 191-255 | 256-465 | 466-580 |

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| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|-----|---|
| | m ² | nsf | |
| Cafeteria: | | | Where the physical plant of an existing hospital makes it impossible to treat the entire hospital as one centralized unit, space requirements may be computed individually for each separate unit. <u>Note:</u> Indicated calculation number “5” from section 5.1.4. |
| Cafeteria Serving | 18.58 | 200 | Minimum. Maximum 5,000 nsf. Number of seats x 7 NSF per seat (5). Increase area by 140% if a scramble system is used. This includes area for take-out service. |
| Dining Room | 1.39 | 18 | x number of regular seats (5a) |
| | 2.32 | 25 | x number of handicapped seats (5b). |
| Snack Bar, Vending Area | | | See Section 5.8. |
| Ward Service: | | | |
| Nourishment Center | 9.29 | 100 | See Section 4.1. |
| Patient Tray Service: | | | Select either Line Tray Service or Carousel Tray Service, but not both. |
| Line | 41.81 | 250 | Minimum. 1000 nsf maximum. Number of trays to be assembled x 4.5 NSF per tray (3). |
| Carousel | 35.30 | 220 | Minimum. 800 nsf maximum. 3.6 x number of trays to be assembled (3). |
| Cart Storage | 0.93 | 10 | Minimum. 10 x number of Patient Tray Carts (4). |
| Sanitation: | | | |
| Dishwashing, dish collection (soiled and clean), clean dish storage. | 24.15 | 260 | Minimum. 1200 nsf maximum. Planned Average peak meals served (1d) x 1 NSF per meal. |
| Pot Washing Center | 13.94 | 150 | Minimum. 500 nsf maximum. Average peak meals served (1d) x 1 NSF per meal. NOTE: The escalation of space based on average peak meals will accommodate the space required for an automatic pot washer in facilities serving greater than 276 meals. |

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| FUNCTION | | | | | PLANNING RANGE/COMMENTS | | | | | | | |
|--|------------|-----|--------|-----|--|-----|---------|-----|---------|-----|---------|-----|
| Food Processing and Preparation: | | | | | The areas listed below are based on planned average peak meals as listed in “1d” in Section 5.1.4 above. | | | | | | | |
| | AUTHORIZED | | | | | | | | | | | |
| Number of beds | 25 - 75 | | 76-109 | | 110-170 | | 171-275 | | 276-405 | | 406-550 | |
| | m² | nsf | m² | nsf | m² | nsf | m² | nsf | m² | nsf | m² | nsf |
| Meat Preparation | 4.65 | 50 | 6.97 | 75 | 9.29 | 100 | 9.29 | 100 | 18.58 | 200 | 37.16 | 400 |
| Pastry Preparation | 0 | 0 | 0 | 0 | 16.72 | 180 | 23.23 | 250 | 32.52 | 350 | 51.10 | 550 |
| Hot Food Production: Steam Center, Fry Center, Grill/Broil Center, Bake/Roast Center | 23.23 | 250 | 32.52 | 350 | 37.16 | 400 | 41.81 | 450 | 46.45 | 500 | 60.39 | 650 |
| Mixing Center | 1.86 | 20 | 3.25 | 35 | 3.72 | 40 | 4.18 | 45 | 4.65 | 50 | 5.11 | 55 |
| Therapeutic Diet Prep. | 4.65 | 50 | 4.65 | 50 | 6.97 | 75 | 6.97 | 75 | 9.29 | 100 | 13.01 | 140 |
| Fruit/Vegetable Prep. | 6.97 | 75 | 9.29 | 100 | 13.01 | 140 | 13.94 | 150 | 18.58 | 200 | 21.83 | 235 |
| Salad Assem./portioning | 6.97 | 75 | 9.29 | 100 | 11.15 | 120 | 13.94 | 150 | 17.65 | 190 | 22.30 | 240 |
| Dessert Assem./Portion. | 1.86 | 20 | 1.86 | 20 | 2.79 | 30 | 2.79 | 30 | 5.57 | 60 | 13.94 | 150 |
| Ingredient Room | 6.97 | 75 | 9.29 | 100 | 13.01 | 140 | 14.86 | 160 | 15.79 | 170 | 16.72 | 180 |
| Carb. Beverage Room | 3.72 | 40 | 3.72 | 40 | 3.72 | 40 | 3.72 | 40 | 5.57 | 60 | 5.57 | 60 |

Small/isolated/overseas facilities may be addressed by special study.

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|-------------------------------------|----------------|-----|---|
| | m ² | nsf | |
| Cart Wash Center: | | | The areas listed below are based on number of carts listed as “4” in Section 5.1.4 above. |
| Manual | 6.97 | 75 | Minimum. 150 nsf maximum. Number of carts x 10 NSF per cart. Facilities with less than 275 beds are not authorized an automatic cart washing machine. |
| Automatic | 15.79 | 170 | Minimum. Plus 0.5 nsf x number of beds. Facilities with more than 275 beds may opt for an automatic cart washing machine, instead of manual. Select either manual or automatic washing, but do not select both for facilities with more than 275 beds. Cost justification required. |
| Cart Wash – sanitizing spray system | | | One per automatic cart wash center. Provides back up for automatic cart washing machine. |
| Trash Can Cleaning | 3.72 | 40 | One per food service area. May be part of trash staging or located at an outdoor service area. |
| Trash Staging/Sorting | 7.43 | 80 | Minimum. Individual study required for greater than 400 meals per day. |
| Janitors’ Closet | 5.57 | 60 | One janitor’s closet per 10,000 nsf. See Section 6.1. |

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| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|-----------------------------------|----------------|--------|---|
| | m ² | nsf | |
| Storage: | | | |
| Storekeeper and Receiving | 7.43 | 80 | Minimum. Per each 250 average ration. 240 nsf maximum. The number of average rations are listed as "2b" in Section 5.1.4 above. |
| Dry Food Storage | 7.43 | 80 | Minimum. 1.5 nsf x number of weeks of storage x Number of Beds. |
| Nonfood Storage | 7.43 | 80 | Minimum. 0.5 nsf x number of weeks of storage x Number of Beds. |
| Refrigeration | 6.97 | 75 | Minimum. 0.7 nsf times number of beds. If refrigerated storage is stored more than one week (which needs special justification), then double this number. |
| Freezer | 9.29 | 100 | Minimum. 0.5 nsf x Number of weeks of storage X Number of Beds |
| Flash freezer | 7.43 | 80 | Individual study where cook-chill process used. This process is not recommended. Allowed only in facilities over 350 beds. |
| Refrigeration Equipment room | 7.43 | 80 | Minimum. 140 maximum. 20 NSF per 125 Peak Average Rations per day. May be located at an exterior location. |
| Linen Storage | 4.65 | 50 | Minimum. Provide 50 nsf for the first 100 seats in the cafeteria and 15 nsf for each additional 100 seats. |
| Cleaning Product Storage | 7.43 | 80 | Minimum. Provide 80 nsf for the first 75 beds and 10 nsf for each additional 50 beds. |
| Equipment Storage | 9.29 | 100 | Minimum. Provide 100 nsf for the first 75 beds and 25 nsf for each additional 50 beds. |
| Nutritional Supplements Storage | 4.65 | 50 | Minimum. Provide 50 nsf for the first 75 beds and 25 nsf for each additional 50 beds. |
| Paper Products Storage | 9.29 | 100 | Minimum. Provide 100 nsf for the first 75 beds and 25 nsf for each additional 100 beds. |
| Administration: | | | |
| Chief of Food Service | 11.15 | 120 | Private office space per FTE programmed. |
| Secretary to Chief Food Service | 11.15 | 120 | Includes Visitor's Waiting Space |
| NCOIC/LCPO/LPO Office | 11.15 | 120 | Private office space per FTE programmed. If open office, then provide 60 nsf. |
| Conference/ Training Room | 14.87 | 160 | 25 -300 beds |
| | 23.23 | 250 | 301 + beds. |
| Administrative Office | | varies | Refer to Chapter 2.1. Provide if full time administrative support programmed. |
| Storekeeper/Receiving Office/Area | 11.15 | 120 | One per FTE programmed. |
| Office Supply Storage | 4.65 | 50 | Minimum. Provide 50 nsf for the first 75 beds and 10 nsf for each additional 100 beds. |

DoD Space Planning Criteria for Health Facilities

Food Service

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|--------|--|
| | m ² | nsf | |
| NutritionClinic: | | | |
| Dietitian's Office | 11.15 | 120 | 1 per FTE dietitian. Private Office Space. |
| Height/Weight Screening | 5.57 | 60 | 1 per clinic. |
| Clinic Conference / Classroom | 20.90 | 225 | One per nutrition clinic. |
| Storage | 7.43 | 80 | 25-175 beds. Add 20 nsf if greater than 175 beds. |
| Food Service Administration: | | | Non-Private Work space |
| Clinical Dietetics | 11.15 | 120 | 1 per FTE. If open office, then provide 60 nsf x number of personnel requiring desk space. |
| Food Production Service | 11.15 | 120 | 1 per FTE. If open office, then provide 60 nsf x number of personnel requiring desk space. |
| Education & Research (facilities with dietetic internship) | 5.57 | 60 | 1 per FTE intern programmed. |
| Staff Facilities: | | | |
| Staff Locker Rooms | | varies | See Section 6.1. |
| Staff Lounge | | varies | See Section 6.1. |
| Staff Showers and Toilets: | | varies | See Section 6.1. |
| Janitor's Closet | 5.57 | 60 | One per 10,000 nsf. See Section 6.1. |

DoD Space Planning Criteria for Health Facilities

Logistics

5.2.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for the acquisition, receipt, storage, quality control, accounting, stock control, property management, distribution, collection maintenance, and control of all material in military health care facilities. Logistics includes medical and non-medical supplies, medical equipment maintenance, property management, plant maintenance, linen control and housekeeping.

5.2.2. DEFINITIONS:

Administrative Area: Offices, waiting rooms, and special areas required by Logistics to engage in overall management of logistical operations of a health care facility and medical material support for installation and satellite activities.

Biomedical Equipment Maintenance Service: Location of maintenance and calibration shops where inspection, maintenance, repair, testing, overhaul and maintenance of equipment is performed. Specially designed rooms are included for testing and maintenance of audio sensitive equipment. Separate secure rooms are also provided for storage of items awaiting repair or issue and repair parts. A technical library should be provided where manuals, guides and resources can be maintained and utilized by personnel. When Logistics Support Building (LSB)/Warehouse is not contiguous with a health care facility, Satellite Biomedical Equipment Maintenance Service will be programmed in the health care facility.

Bulk Material Service (BMS): Provides space for receiving, inspection, storage, controlling, vaulted and caged areas, and is suing of bulk stocks of material and equipment to support projected requirements of the health care facility and satellite activities. Reserve and mobilization items require comparable environmental controls as specified for general storage. These items, other than those requiring rotation, may be stored in adequate warehouses on or off the installation. If adequate warehouse storage is not available, reserve and mobilization storage requirements may be projected within the Logistics Support Building (LSB). Storage computations in these cases will be based upon actual missions, programmed cubage, and required storage techniques. Special OSHA requirements for safety of personnel and necessary climate controls of temperature and humidity will be met.

Cart Holding Area: Provides space for pre-stocked supply and linen carts, including aisle space between carts to allow rapid movement of any cart in an emergency situation.

Cart Receiving Area: Provides space for checking and temporary holding of depleted carts returned from Health Care Points to be restocked.

Central Processing and Distribution: Consists of mobile shelving containing sufficient quantities of material (in units measure), including forms and office supplies to sustain operations within the health care facility between re-supply from Bulk Material Service. Also includes circulation area for movement of carts between shelves and restocking carts for use as back-up carts for emergency use or exchange cart service. May include areas for processing trash and re-usables and sanitation/sterilization of medical supplies (Central Sterile Supply).

Clean Linen Storage: Area where clean linen is stored for issue. This area should be located close to the loading dock. The factors for sizing these areas convert the General Storage NSF to net cubic feet (NCF) assuming a 16' stacking height in general storage. The 0.0035 (Clean Linen Storage) allowance factor is calculated against the General Storage NCF. To simplify the process, the NCF conversion and allowance factors have been consolidated into a single decimal calculation. This area should be separate from Soiled Linen Storage.

DoD Space Planning Criteria for Health Facilities

Logistics

Covered Dock: Area where bulk material and equipment is delivered. Adjustable ramp (dock leveler) and special lighting for night loading/unloading operations will be provided on this dock. If LSB is not contiguous with medical facility, program a separate dock at medical facility.

Customer Service Area: A dedicated area within Logistics Administration used for vendor, staff, and patient reception and inquiries. A desk and computer workstation should be provided to allow supply custodian research on supply items, logistics staff checks of vendor invoices/orders, and ordering/filling special patient needs for durable medical items, safety glasses, hearing aid batteries, etc as prescribed by a provider.

Dirty or Soiled Linen Storage: Area where soiled linen is stored in carts for shipment to the laundry. This area should be located close to the loading dock. The factors for sizing these areas include the number of carts anticipated and aisle space between carts to allow rapid movement. This area should be separate from Clean Linen Storage. Army facilities will also require a washer and dryer hookup.

General Storage Area: Consists of shelving, bins, carousels and pallets for storage of bulk material not requiring special handling and control. Adequate aisle space is included to provide movement of material handling equipment. Use of movable and prefabricated refrigerator and/or freezer systems provides maximum flexibility in use of storage space. Controlled Room Temperature maintained thermostatically between 15 and 39 degrees centigrade (59 and 86 degrees Fahrenheit) and relative humidity storage are required for drugs and other designated medical material. Refrigerator and/or freezer systems will consist of separate units collocated and connected separately to emergency power and alarm system. Lighting levels should be maintained at levels adequate for a 24-hour operational work environment. NSF allowance assumes that the warehouse will have a 12-foot stacking height. The aisle width in this area is to conform to the standard 25-foot forklift aisle.

Health Care Point: Area within using activity where supplies in unit of measure form are delivered and retained for use, preferably centrally located. If point of use systems are utilized, ensure space and utilities are adequate to support these systems.

Housekeeping Storage: Area for storing equipment and supplies used by custodial personnel and recharging equipment.

Linen Storage and Cart Restocking Area: Area within Central Processing and Distribution with carousels and mobile bins for storage of adequate stocks of clean linen, circulation area for movement of carts between bins and carousels and restocking carts for subsequent use. NFPA requirements for a 2-hour rated enclosure with a fire sprinkler system and linen security will be met.

Locker, Lounges, Toilets, and Showers: Area for toilet, shower, and locker space for personnel in clean area of Material Services, Biomedical Equipment Maintenance, Housekeeping and Plant Maintenance Services to change and store clothing plus adequate space and equipment in lounge for use as conference room. Separate lounge and conference areas will be delineated concurrent with labor union requirements. Contracted maintenance personnel may also have a need for a separate locker and shower area.

Material Breakdown Area: Area where packages of material are broken down to unit of measure quantities. This area needs to be sufficiently segregated from the general storage area to preclude overflow of storage into this area. The size of this area is determined by the quantity of supplies received.

DoD Space Planning Criteria for Health Facilities

Logistics

Material Distribution Service: Area where stocked carts are queued, controlled, and scheduled for delivery to designated Health Care Points, with the use of radios. Equipment that is usually required for temporary use is maintained and delivered by Material Distribution Service to Health Care Points on a recurring and on an as-required basis. Special delivery is provided by Linen and Housekeeping (may or may not be part of Material). Center for small quantities of material required in an emergency situation. Collection of soiled material and waste is accomplished by Material Distribution Center. This area will have direct access to service corridors and is contiguous to Cart Holding area. Typically, Pharmacy, Food Service and Central Sterile supply are performed by the owning service and not by Logistics.

Material Distribution Service Supervisor Office: Administrative space for manager of Material Distribution Service equipped for direct communication with each Health Care Point. This office is located adjacent to Cart Queuing and Dispatch Area and convenient to other elements of Material Distribution Service.

Plant Maintenance Service: Location of maintenance shops for support of all facilities maintenance with supporting administrative offices. It typically also includes parts storage, equipment storage, reference areas, flat file storage, CADD areas and locker facilities.

Service Dock: Area where bulk material and equipment is delivered. Adjustable ramp (dock leveler) and special lighting for night loading/unloading operations will be provided on this dock. If LSB is not contiguous with medical facility, program a separate dock at medical facility. The service dock must have two clearly defined areas: one for clean and one for soiled dock requirements. These two areas can not overlap.

Receiving and Processing Area: Provides space where detailed inspection of quantity and quality of material and equipment is accomplished, appropriate receiving reports are completed, and all items are sorted for delivery to appropriate storage location. This area is also where large equipment boxes and packing material are broken down and where large boxes of multiple items are divided into smaller quantities for placement on shelves.

Special Storage Area: Consists of all space required to store special portable equipment, secure areas, and properly ventilated space for soiled linen and trash. Includes specially constructed vaults for storage of controlled substances, including reserve and mobilization stocks, rooms for proper security and storage of sensitive items, separate storage of flammable anesthetics, oxidizing gases, acids, hazardous agents, and equipment awaiting disposition. The vaults will be constructed of reinforced concrete, or reinforced concrete masonry units, and also include intrusion devices as prescribed by the National Standards. Vault and caged areas need to be allocated within the Bulk Material Storage (BMS) for controlled and sensitive items. An emergency eyewash, shower, and drain will be adjacent to areas where volatile liquids and other chemicals are stored. Flammable storage room will include explosion-proof lighting and switches, exhaust fan and consist of a ramp over a raised door sill to preclude spread of flaming liquids in case of explosion. A separate storage room will be provided for flammables and one for oxidizing agents.

Uniform Services: Areas where clean duty uniforms are stored on a clothing rack and issued on an individual pick-up service basis. Repair of linens and garments may be accomplished in this area.

DoD Space Planning Criteria for Health Facilities

Logistics

5.2.3 POLICIES:

Type of Delivery System: The type of delivery system must be determined when planning space requirements. The categories of material delivery system are: (1) automated cart vertical lift; (2) automated cart vertical lift with horizontal movement; (3) automated vertical lift box conveyor; (4) automated vertical lift and horizontal movement box conveyor; (5) pneumatic chutes; and (6) manual transporters. The size and number of carts and number of personnel required will be determined in part by the type of delivery system to be implemented. Each facility and/or Medical Department must estimate the number of carts per unit based upon the proposed concept of operation (See Section 4.B). Automated cart delivery system will be justified on a cost/benefit basis. Dedicated single item delivery systems for rapid support for special items should be considered, (e.g., Pharmacy to Health Care Points). All entry/exit stations of automatic part systems for clean material must be in separate locations from soiled material access points. A backup mode of manual material handling must be available in the event of a breakdown in any automated component.

Trash and Soiled Linen Removal Systems: The method of transporting waste material and soiled linens from Health Care Points to appropriate central collection areas must be determined. Use of separate automated systems should be considered in transport of trash directly to bulk trash containers and linens directly to soiled linen rooms and must be justified on a cost/benefit basis. Access doors to these automated systems should be located in the Soiled Material Areas of Health Care Points. A manual soiled cart system will be used in all medical facilities where automated systems are not feasible. In this case, a trash compactor may be located in one Soiled Material Area on each floor to reduce the bulk of waste moved through the medical facility.

Medical material and the aforementioned services will be housed in a Logistics Support Building (LSB), which is less costly to construct than a medical facility, but contiguous to the medical facility to conserve personnel and funds. The LSB must be architecturally compatible with the main facility. When a LSB cannot be located contiguous to the medical facility, it will be necessary to include Central Processing and Distribution, Cart Holding and Receiving areas, and Satellite Housekeeping, Plant Maintenance, and Biomedical Equipment Maintenance Service areas in the medical facility. The Material Distribution Center, Cart Queuing, and Dispatch will always be in the medical facility.

Contractor's Lounge: Requirement for union contractors vary widely and need to be determined at each facility. The justification for the size of the lounge should be based on volume of work contracted at each facility.

5.2.4. PROGRAM DATA REQUIRED:

A. Programmed Facility Data

The Number of Beds in:

Main Facility

Satellites

The Number of Outpatient Visits in:

Main Facility

Satellites

The Staffing Summary

The area required for one year's worth of material branch files/record storage.

The area required for one year's worth of property management branch files/record storage.

Verify current area and quantity of items on hold for suspended recalled material pending disposition instructions.

Programming Calculations for Material Restocking System

DoD Space Planning Criteria for Health Facilities

Logistics

B. Cart Requirements:

| Function | # of Units | x Carts/ Units | = Number of Carts |
|--|------------|----------------|-------------------|
| Nursing Units | _____ | _____ | _____ |
| Intensive Care Unit | _____ | _____ | _____ |
| Labor & Delivery | _____ | _____ | _____ |
| Surgical Suite | _____ | _____ | _____ |
| Case Cart? – Yes/No | | | |
| Emergency Rooms | _____ | _____ | _____ |
| Treatment Areas | _____ | _____ | _____ |
| (Cast Room, Trauma Room, OB/GYN Room, etc. All treatment cubicles equal 1 treatment Area) | _____ | _____ | _____ |
| Ancillary Services (Radiology, Pharmacy, Lab, etc.) | _____ | _____ | _____ |
| Clinics | _____ | _____ | _____ |
| Totals (number of carts will be doubled for exchange cart system) | _____ | _____ | _____ |
| Totals x 2 for Exchange Cart System | | | |
| Point of Use Cabinets and Carts | _____ | _____ | _____ |
| Totals | | | |

C. Transportation Work load: Function

Material Distribution Center _____
 Pharmacy _____
 Food Service _____
 Central Sterile Supply _____
 TOTAL _____

Par-level distribution systems: Par-level distribution systems require that areas be restocked based on use volumes and as such do not require additional carts beyond those required on each Unit. The impact of par-level requires additional carts at the point of distribution and not at the point of use.

Point of use system and cart requirements: Point of Use systems will require par level by the log tech determined on use volumes. Additional carts may be required based on the items stocked in the point of use systems and units available. Additional carts may be required based on quantities of floor stock items required by the user.

DoD Space Planning Criteria for Health Facilities

Logistics

5.2.5. SPACE CRITERIA:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|-----------------------------------|------------|-----|--|
| | m² | nsf | |
| | | | |
| Administrative Space Requirements | | | |
| | | | |
| Office, Director Logistics | 9.29 | 100 | Provide a private office, if FTE assigned. |
| Secretary, Visitor Waiting | 11.15 | 120 | Special justification required for more than one per service. |
| Material Staff Officer | 9.29 | 100 | |
| Office, Administration | 9.29 | 100 | 100 nsf minimum or 60 nsf per FTE. |
| Office, NCOIC | 9.29 | 100 | |
| Safety Officer | 9.29 | 100 | If FTE assigned. |
| Physical Security Officer | 9.29 | 100 | If FTE assigned. |
| Conference Area / Library | 11.15 | 120 | Minimum. Add 10 nsf per FTE in excess of 10. 200 nsf max. |
| Office Automation Room | 11.15 | 120 | |
| Customer Service Area | 9.29 | 100 | Provide a 100 nsf office, if FTE assigned. |
| | | | |
| Material Branch | | | |
| | | | |
| Material Branch Officer | 9.29 | 100 | Provide a private office, if FTE assigned. |
| Office, Administration | 9.29 | 100 | 100 nsf minimum or 60 nsf per tech. work station per FTE assigned. |
| Office, ADP Equipment | 11.15 | 120 | This room holds dedicated logistical computer systems, but can be deleted if a mainframe for Logistics is located within the Information Systems area. Add an additional 0.5 nsf per bed for hospitals greater than 200. Add an additional 5 nsf per 10,000 nsf for clinics greater than 60,000 nsf. |
| Files/Record Space | 5.57 | 60 | Minimum. Compute based on the following formula. NSF = (1 year's worth of files nsf) x 3. |
| | | | |
| Property Management Branch | | | |
| | | | |
| Property Management Officer | 9.29 | 100 | Provide a private office, if FTE assigned. |
| Office, Administration | 9.29 | 100 | 100 nsf minimum or 60 nsf tech. work station per FTE assigned. |
| Files/Record Space | 4.65 | 50 | Minimum. Compute based on the following formula. NSF = (1 year's worth of files nsf) x 3. |
| Service Branch Office(s) | 9.29 | 100 | For additional FTE that require a private office. |
| | 5.57 | 60 | For additional FTE that do not require a private office. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|----------|----------------|-----|-------------------------|
| | m ² | nsf | |

| | | |
|--|--|--|
| Property Management Branch (Continued): | | |
|--|--|--|

| | | | |
|--------------------------|-------|-----|--|
| Purchasing Branch | 11.15 | 120 | Minimum. |
| Central Alarm Room | 11.15 | 120 | Verify if required. Provide in either this Section or Section 2.4, but not both. |
| Fire System Control Room | 11.15 | 120 | Verify if required. |

| | | |
|--------------|--|--|
| Docks | | Verify the need for lift capability and program and build into loading dock area. |
|--------------|--|--|

| | | | |
|-------------------------------|-------|-----|--|
| Service dock – Clinics | 10.22 | 110 | Per loading dock bay. 1 per clinic. Provide two separate areas: one for clean and one for soiled requirements. |
| Loading dock – Clinics | 10.22 | 110 | One loading dock bay. 1 per clinic less than 80,000 GSF. 1 additional dock for clinics greater than 80,000. |
| Hospitals and Medical Centers | | | See below. Provide two separate areas: one for clean and one for soiled requirements. |

| Number of loading docks for Hospitals and Medical Centers | Material supplies | general | food service |
|---|-------------------|---------|--------------|
|---|-------------------|---------|--------------|

| | | | |
|--------------------|---|---|---|
| Less than 100 beds | 2 | 1 | 1 |
| 100-200 beds | 3 | 1 | 2 |
| 200-300 beds | 4 | 2 | 2 |
| 300-400 beds | 5 | 2 | 3 |

| | | |
|------------------------|--|--|
| Receiving Areas | | |
|------------------------|--|--|

| | | | |
|--------------------------------------|-------|-----|---|
| Receiving & processing | 37.17 | 400 | Minimum nsf, maximum 1,800 nsf. 0.25 nsf per 1,000 nsf of space in general and special storage areas. |
| Satellite Material Receiving/Sorting | 9.29 | 100 | Minimum if LSB is not contiguous to the health care facility. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|----------------------------------|------------|-----|--|
| | m² | nsf | |
| General Storage Areas | | | |
| Medical and Non-Medical Supplies | | | Compute based on the following formula: nsf = (20 x beds) + (0.035 x annual outpatient visits). This space represents total net storage requirement and should not be reduced during grossing. NSF allowance assumes a 12-foot stack height. Area will decrease proportionally for areas with higher stacking heights and increase proportionally for areas with lower stacking heights. A separate study is required for areas that will use an electronic retrieval system. |
| Equipment Holding | 18.58 | 200 | Minimum. Add 10 nsf of area for every 1000 nsf of general storage over 5,000. |
| Equipment Storage | 18.58 | 200 | Minimum. Add 10 nsf of area for every 1000 nsf of general storage over 5,000. |
| Special Storage Areas | | | |
| Secure Storage | 3.72 | 40 | Minimum. General Storage Total nsf x 0.025. Space should be in a caged area. |
| Vault Storage | 3.72 | 40 | Minimum. Verify with chief officer if controlled substance and other high priority storage items exist. General Storage Total nsf x 0.01. |
| Satellite Secure Storage | 3.72 | 40 | Minimum. If LSB is not contiguous with the medical facility, program satellite security at 20 nsf per 150 beds within med. Facility + .005 nsf x annual outpatient visits. In addition to Secure Storage above. |
| Waste Sterilization Unit | 9.29 | 150 | Minimum. Gen. Storage Total nsf x .010. San-I-paks are typically located under cover outside in temperate climates and would not be calculated in the building nsf. |
| Satellite F/H | 10.22 | 110 | Minimum. If LSB is not contiguous with the medical facility, program satellite flammable/hazardous storage within medical facility. |
| Acid | 4.65 | 50 | Minimum within med. Facility. Size based on a study of the actual need of the facility. |
| Satellite | 18.58 | 200 | If LSB is not contiguous with the facility, program satellite Storage equipment within health care facility. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|------------|-----|--|
| | m² | nsf | |
| Special Storage Areas (Continued) | | | |
| Gas Cylinders | 18.58 | 200 | Two enclosures (one for full cylinders and one for empty cylinders) at 100 nsf each, min. Maximum 600 NSF. 1 nsf per bed + .0025 nsf x annual outpatient visits. |
| Warehouse Supervisor | 9.29 | 100 | Provide within a medical facility. Clinical facilities may not require the space. Based on approved personnel. |
| Storage and assembly area for aircraft first aid kits | 3.72 | 40 | Minimum. 20 nsf per 100 kits maintained (verify if mission assigned). |
| Holding area for suspended recalled material pending disposition instructions | 9.29 | 100 | Minimum. One per logistics area, verify if mission assigned. Look at current area and quantity of items on hold. |
| Biomedical Eq. Maintenance Service | | | |
| Office, Chief, Biomedical | 9.29 | 100 | 100 nsf for each 1 authorized officer. |
| NCOIC | 9.29 | 100 | Provide one, where FTE authorized. |
| Administration, employees | 5.57 | 60 | Provide one 60 nsf tech. work station per FTE authorized. |
| Files/Record Space | 4.65 | 50 | For up to 200-bed facility. Add 5 nsf per 100 beds over 200. Where regional responsibilities exist, include beds for satellite activities in computing space. |
| Reference Library | 4.65 | 50 | Minimum. Provide up to a maximum of 200 nsf, based on the property book value. |
| Workstations/Common Use Work Space | 13.94 | 150 | Minimum. Provide 150 total nsf per technician.. Less than 7 techs, assume less than 200 beds. More than 10 techs, assume over 300 beds. |
| Parts Room | 18.58 | 200 | Minimum, or 2 nsf per bed + .0035 x annual outpatient visits. Where regional responsibilities exist, include beds for satellite activities in computing space. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|--------|---|
| | m ² | nsf | |
| Biomedical Eq. Maintenance Service (Continued) | | | |
| Equipment Holding Area | 18.58 | 200 | For up to 100-beds + .0035 nsf x annual outpatient visits. Add 50 nsf for facilities with 100 to 200 beds. Where regional responsibilities exist, include beds for satellite activities in computing space required. Space not required for facilities with 3 or less technicians authorized. |
| Electronics Repair/ Calibration Room | 13.00 | 140 | Minimum. Add an additional 80 nsf per additional 100 beds over 200 beds. Plus .002 nsf x annual outpatient visits. Where regional responsibilities exist, include beds for satellite activities in computing space required. Space not required for facilities with 3 or less technicians authorized. |
| Equipment Receiving Area | 12.08 | 130 | Provide for facilities with at least 200beds. Add 25 nsf per additional 100 beds over 200 beds. Where regional responsibilities exist, include beds for satellite activities in computing space required. |
| If LSB is not located contiguous to the medical facility, program the following in the medical facility: | | | |
| Workstation | 9.29 | 100 | Within medical facility. |
| Storage | 9.29 | 100 | Within medical facility. |
| Equipment Holding Area | 9.29 | 100 | Within medical facility. |
| Staff Lockers, Toilets and Lounges | | | |
| | | | See Section 6.1. |
| Linen Control | | | |
| Office Space | 9.29 | 100 | Minimum. 60 nsf per additional authorized employee. |
| Clean Carts Storage | | varies | 10 nsf times 25% of total linen carts. Space may not be needed in a clinic with no CPD. Clinical settings may only need a clean linen room and a dirty linen room. |
| Clean Linen Storage | 9.29 | 100 | Minimum: nsf = 0.056 x general storage nsf |
| Seamstress Work area | 9.29 | 100 | Minimum – 100 nsf per seamstress where authorized. |
| Seamstress Storage | 9.29 | 100 | Max. |
| Soiled Linen | 9.29 | 100 | Minimum: nsf = 0.024 x general storage NSF |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|-----|---|
| | m ² | nsf | |
| Uniform Service | | | |
| Clothing Storage | 11.15 | 120 | Minimum. Add 0.5 nsf per bed over 120, maximum 360 nsf. A separate study is required for areas that will use a rack storage or an electronic conveyor storage system. |
| Workstation | 9.29 | 100 | |
| Linen Folding | 9.29 | 100 | Minimum |
| | 13.94 | 150 | 100-200 beds |
| | 18.58 | 200 | 201-300 beds |
| | 27.88 | 300 | 300+ beds |
| Central Processing and Distribution | | | |
| Supervisor Office Space | 9.29 | 100 | |
| Cart Holding Area | .93 | 10 | Times 40% of total carts used for material distribution plus 4 spaces for emergency carts. |
| Cart Receiving/ Sorting Area | .93 | 10 | Times 5% of total carts used for material distribution |
| | | | |
| Material Storage and Cart Restocking Area | .93 | 10 | Times 2% of total carts used for material |
| Storage | 9.29 | 100 | Per 1,000 NSF of space in medical supply general storage area. |
| Material Distribution Center | | | |
| Supervisor and Control Panel | 9.29 | 100 | Minimum .60 nsf for each additional authorized employee. |
| Cart Queuing and Dispatch Area | .93 | 10 | Times 5% of total carts in the distribution system (Pharmacy, Food Service, and Central Sterile supply carts included if not on dedicated system). |
| Trash | 18.58 | 120 | Minimum + 1 nsf per bed over 200. |
| Facility Manager | | | |
| Reception/Work Order Area | 11.15 | 120 | |
| Manager's Office | 9.29 | 100 | |
| Assistant Manager's Office | 5.57 | 60 | Minimum. 60 nsf for each FTE assistant. |
| Engineering Technicians | 5.57 | 60 | Minimum. 60 nsf for each FTE assistant. |
| CADD Room | 5.57 | 60 | Per CAD workstation, plus 40 nsf for plotter. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|------------|-----|---|
| | m² | nsf | |
| Facility Manager (Continued) | | | |
| File Storage Room | 11.15 | 120 | Add an additional 80 nsf for clinics over 100,000 gsf, or facilities over 200 beds. |
| Key Making and Key Storage Room. | 11.15 | 120 | Allow 100 nsf for workstation area, plus 20 nsf for storage. Add an additional 80 nsf for facilities over 200 beds, or outpatient clinics over 80,000 gsf.. |
| ID Badge Photo Area | 9.29 | 100 | Minimum. 20 additional nsf for each 10,000 gsf of building total over 80,000 gsf. |
| Bench Stock Storage | 14.869 | 160 | For clinics. Add 40 nsf for clinics over 80,000 gsf. |
| | 29.73 | 320 | For AHCC's/small hospitals. |
| | 44.95 | 480 | For medical centers. |
| Plant Maintenance | | | |
| Chief, Civil Engineer Foreman | 9.29 | 100 | |
| Files & Record Space | 9.29 | 100 | |
| General Workstation Area w/tools and benches | 11.15 | 120 | For the first three repairmen. Add 40 nsf for each additional person above three. |
| Contractors' Office Area | 11.15 | 120 | Minimum, add 60 nsf for each additional administrative contract employee. |
| Common Use Space | 18.58 | 200 | Minimum. 1 nsf per bed. Open floor area for repair usage. |
| Hazardous Material Storage | 8.36 | 90 | For facilities up to 200 beds and clinics up to 80,000 gsf. |
| | 10.68 | 115 | For facilities up to 300 beds and clinics greater than 80,000 gsf. Add 25 nsf for each additional 100 beds over 300. |
| Repair Parts Room | 22.30 | 240 | For facilities up to 100 beds, or for clinics (if service provided) up to 80,000 gsf. |
| | 33.44 | 360 | For facilities up to 200 beds, or clinics greater than 80,000 gsf. |
| | 44.61 | 480 | For facilities up to 300 beds. Add 120 nsf for each additional 100 beds. |
| Equipment Receiving | 18.58 | 100 | For facilities up to 100 beds and clinics (if service provided). |
| | 18.58 | 200 | For facilities up to 200 beds. Add 100 nsf and Holding Area for each additional 100 beds. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|------------|-----|---|
| | m² | nsf | |
| Plant Maintenance (Continued) | | | |
| Grounds Maintenance. If LSB is not located contiguous to the medical facility, program office and file space in the medical facility, the remainder in the LSB | 9.29 | 100 | This area to be used only for facilities that contract ground maintenance services. For in-house services: see below. |
| | 18.58 | 200 | For facilities up to 200 beds and clinics up to 60,000 gsf. |
| | 27.87 | 300 | For facilities over 200 beds and clinics over 60,000 gsf. |
| Housekeeping Service | | | |
| Office, Supervisor | 9.29 | 100 | |
| Equipment and Supplies Storage | 11.15 | 120 | Up to 200 beds, or clinics up to 60,000 gsf. |
| | 27.87 | 300 | Up to 300 beds, or clinics greater than 60,000 gsf. |
| | 46.45 | 500 | Over 300 beds. |
| Equipment Charging Room If LSB is not contiguous to the medical facility, program housekeeping within the medical facility. | 15.80 | 170 | |
| Contractor’s Lounge | 11.15 | 120 | Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted. |
| Contractor’s Office | 9.29 | 100 | Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted. |
| Contractor’s Storage | 9.29 | 100 | Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted. |

DoD Space Planning Criteria for Health Facilities

Logistics

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|----------------|-----|---|
| | m ² | nsf | |
| Optical Fabrication Service (Optional) | | | |
| Chief | 9.29 | 100 | |
| Clerks | 9.29 | 100 | Minimum, or 60 nsf per authorized over 1. |
| Work Space | 9.29 | 100 | Per authorized optical worker. |
| Parts Storage Room | 9.29 | 100 | |
| Personnel ESCORT Service (Optional) | | | |
| Office Space | 8.36 | 90 | For Chief |
| Waiting Space | 8.36 | 90 | Minimum + 20 nsf per authorized employee over 4 |

Contractor's Lounge, storage and office: Justification based on how the work is contracted.

Bulk War Reserve Material Storage: This is only for facilities that have a dedicated War Reserve Material mission. This space does not have to be in the MTF. All or a portion of the building may require environmental controls.

NSF = $\frac{\text{Total Cube} \times 1.3 \times 2}{\text{Stacking Height}}$

Forklift aisle width: 25-feet.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

5.4.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for the Radiology, Radiotherapy, and Nuclear Medicine Service in DoD medical facilities.

The Radiology Department as used in this criteria includes all diagnostic imaging modalities (i.e. Radiology, Fluoroscopy, Computed Tomography, Magnetic Resonance Imaging (MRI), Ultrasound, etc.). Criteria is provided for the radiology service and for satellite locations such as emergency medicine, orthopedics, etc. It does not include such systems as cardiac catheterization and urological systems normally found in other departments. These systems will be found in the space planning criteria for the applicable department.

The Radiotherapy Department in this criteria includes all treatment modalities (i.e. Linear Accelerator, etc.).

The Nuclear Medicine Service includes provision of space for specialized measurement equipment and environments necessary to use radioisotopes in the diagnosis and treatment of patients.

5.4.2. DEFINITIONS:

Radiology:

Angiography System - A specialized radiographic/fluoroscopic system with expanded capabilities for performing angiography procedures.

Computed Radiography (CR) - Using a traditional exposure unit that uses film, a special reusable cassette captures the image and a CR reader unit digitizes the image and sends it to the appropriate workstation or to storage.

CT Scanner - A Computed Assisted Tomography Scanner (CT) is an x-ray system that produces an axial (cross sectional) image of the anatomy being studied. The CT image is a computer calculated composite of numerous short exposures taken from various angles in a circle around the anatomy of interest. As the image is computer calculated, an image or a series of images may be manipulated to produce different views of the area of interest and to "window" out interfering structures such as bone. The "window" capability allows the radiologist to selectively view either dense tissues such as bones or to view diffuse tissues such as the heart or brain.

Direct Radiology - An image is taken, verified and transmitted within the exposure room (R/F rooms).

Diagnostic Radiology - There are three general systems grouping, although these may be mixed:

1. A film based system with darkrooms and film storage has been the conventional system.
2. A totally digital system is one in which the radiology exposure device generates a digital image that can be:
 - a. read as a digital image or stored in digital form immediately, or
 - b. stored "film" (hard-copy).
3. A computed radiology system is one in which a special cassette is substituted for the film cassette. This special cassette is then placed in a CR reader and a digital image is generated.

Diagnostic Room - Any room in the Radiology Department containing imaging equipment such as radiographic, radiographic/fluoroscopic, MR, angiography, CT, ultrasound system, etc.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

Digital Radiography - The capture or conversion of radiography images in a digital format.

General Purpose Radiograph - A radiographic system designed primarily to perform general radiographic procedures.

Magnetic Resonance Imaging (MRI) - is a technique to produce computer calculated images of human anatomy using a very high strength magnetic field. The scanner gantry incorporates a high strength magnet, radio frequency transmission coils, and signal acquisition coils.

Picture Archiving and Communications System (PACS) - A PACS consist of workstations for interpretation; imaging modalities that gather Radiography, Fluoroscopy, Angiography, Ultrasound, Nuclear Medicine, CT, and MRI data; a web server for distribution; printers for film (which must still be generated, in limited amounts, for the use of those without access to the network); image servers to transfer and hold information within the PACS; an archive of off-line information. A network is needed to reach each of these devices.

Radiographic/Fluoroscopic System - A system designed to produce radiographs or real time motion, plus real time images via direct viewing or a television monitor. The real time images can be recorded for later viewing.

Specialized Radiographic System - A radiographic system designed primarily to perform a specific type of radiographic procedure.

- a. **Dedicated Chest System** - A radiographic system designed to perform upright chest examination.
- b. **Tomography System** - A radiographic system designed to perform laminography studies. This is an option to a radiographic/fluoroscopic room.
- c. **Mammography System** - A radiographic system designed primarily to perform mammographic examinations.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

Nuclear Medicine (the following terms are generally used in reference to Nuclear Medicine and Radiotherapy services):

Cold- Refer to an area, which should be free of radiation. The designations of hot and cold are made to separate potentially radioactive patients from other patients.

Bone Densitometer - measure bone mineral density. It will also compare this measurement to a reference population based on age, weight, sex, and ethnic background.

Dosimetrist - A member of the radiation oncology team who has knowledge of the overall characteristics and clinical relevance of radiation oncology treatment machines and equipment, is cognizant of the procedures commonly used in brachytherapy and has the education and expertise necessary to generate radiation dose distributions and dose calculations in collaboration with the medical physicist and the radiation oncologist.

Dual Photon Bone Mineral Absorptiometry Scanning Room - Room for performing bone densitometry (osteoporosis tests).

Hot- Refers to an area where radiation may be present. For example a “hot” toilet is reserved for patients who have been given a radioactive substance and who are considered radioactive themselves. There are also “hot” waiting rooms. (See Cold).

Linear Accelerator (LINAC) - In the health care setting, a linear accelerator is the device most commonly used for external beam radiation treatments for patients with cancer. It delivers a uniform dose of high-energy x-ray to the region of the patient’s tumor. These x-rays can destroy the cancer cells, while sparing the surrounding normal tissue. The linear accelerator uses microwave technology to accelerate electrons and then allows these electrons to collide with a heavy metal target. As a result of these collisions, high energy x-rays are scattered from the target. A portion of these x-rays is collected to form a beam that matches the size and shape of the patient’s tumor. The beam comes out of a part of the accelerator called a gantry, which rotates around the patient.

Nuclear Medicine - A medical specialty that uses liquid and gaseous radioactive materials (or radiopharmaceuticals) to diagnose and treat various conditions. Nuclear Medicine is also the diagnostic (in vivo and in vitro) and therapeutic use of unsealed radioisotopes (gasses and liquids).

Radiopharmaceuticals- Pharmaceuticals that have a radioactive component. These localize in the body based on their physical or chemical properties. The radiopharmaceuticals used in diagnostic nuclear medicine emit gamma rays that can be detected externally by special types of cameras: gamma or TET cameras. Therapeutic nuclear medicine uses substances that emit beta radiation which can kill targeted cells within the body.

Radiotherapy – also called radiation therapy, is the treatment of cancer and other diseases with ionizing radiation. This is a high-energy ray, usually x-rays, used to kill cells, usually cancer cells.

Positron Emission Tomography (PET)- Produces high energy, 3-D computer-reconstructed images measuring and determining the function or physiology in a specific organ, tumor, or other metabolically active site.

Picture Archiving and Communications System (PACS) - A PACS consist of workstations for interpretation; imaging modalities that gather Radiography, Fluoroscopy, Angiography, Ultrasound, Nuclear Medicine, CT, and MRI data; a web server for distribution; printers for film (which must still be generated, in limited amounts, for the use of those without access to the

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

network); image servers to transfer and hold information within the PACS; an archive of off-line information. A network is needed to reach each of these devices.

Scanning Rooms - "Scanning room" is a generic term used in nuclear medicine for programming purposes. The specific type of scanning equipment, i.e., gamma scintillation camera or PET camera may be included within the same area. Note that scanning is a widely used term and that there are other procedure that are not in nuclear medicine that are scanning procedures - CT Scanners, MRI are examples.

Thyroid Uptake Room - This room is specifically assigned to use isotopes to study problems of the thyroid gland.

5.4.3. POLICIES:

Radiology:

The radiology department (diagnostic radiology, radiotherapy and nuclear medicine) should be collocated.

A Cardiac Catheterization Laboratory can also perform angiography procedures. Under special study, a combined radiographic/fluoroscopic/angiographic room may be programmed for special procedures including the production of single plane angiography.

Mobile x-ray equipment storage areas will not normally be provided in the Radiology department. This equipment should be stored in the area where it is used.

5.4.4. PROGRAM DATA REQUIRED:

Diagnostic Radiology:

Use programmed workload or procedures.

Chest Procedures

Fluoroscopic Procedures

Angiographic Procedures

Mammography Procedures

Portable Procedures

Ultrasound Procedures

Computed Tomography Procedures

MRI Procedures

Total X-Ray procedures

Number of yearly intracranial procedures (neurosurgery)

Teaching facility?

Radiologic Technology Training?

Radiology residency?

Ultrasound Technology Training?

Mammography Technology Training?

Staffing (include residents and students).

Cardiac Catheterization authorized?

If yes, then how many angiographic procedures are expected to be performed by the Cardiac Catheterization lab?

MRI authorized?

Number of MRI procedures?

Total Annual RIA Procedures?

What are the number of FTEs accomplishing transcription within the radiology department?

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

Radiotherapy:

Radiotherapy authorized?
Staffing (include residents and students).

Nuclear Medicine:

Total annual number of nuclear medicine procedures:
a. diagnostic procedures?
b. therapeutic procedures?
Total yearly Nuclear Medicine visits?
Staffing (include residents and students).
Total annual number of bone densitometry procedures?
Nuclear Medicine Technology Training?

Note to Programmer: A decision is required concerning the type of system that will be used in the radiology service. There are three general systems grouping, although these may be mixed. A film based system with darkrooms and film storage has been the conventional system. A totally digital system is one in which the radiology exposure device generates a digital image that can be read as a digital image or stored in digital form immediately. A computed radiology system is one in which a special cassette is substituted for the film cassette. This special cassette is then placed in a CR reader and a digital image is generated.

5.4.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

RADIOLOGY:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|------------|-----|---|
| | m² | nsf | |
| PATIENT AREAS | | | |
| Waiting Room | 18.58 | 200 | Hospital minimum. +80nsf for each additional Diagnostic Room greater than 3. |
| | 9.29 | 100 | Clinic minimum. +80nsf for each additional Diagnostic Room greater than 3. |
| Clinic Reception /Control Center | 13.01 | 140 | One per Radiology service. Provide an additional 140 nsf for every additional 8 FTE providers greater than 8. |
| Public Toilet - Male (water closet, lavatory, urinal) | 11.15 | 120 | Minimum. Add 10 NSF per male over 10. 200 nsf maximum. See Section 6.1. |
| Public Toilet - Female (water closet, lavatory) | 9.29 | 100 | Minimum. Add 10 NSF per female over 10. 200 nsf maximum. See Section 6.1. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---------------------------------------|------------|-----|--|
| | m² | nsf | |
| | | | |
| PATIENT AREAS (Continued) | | | |
| | | | |
| Dressing Cubicle | 4.65 | 50 | Minimum per cubicle. 1 per Diagnostic Room. |
| Linen Alcove | .93 | 10 | 1 per Diagnostic Room. |
| Dedicated Patient Toilet (wc, lav) | 5.57 | 60 | 1 per Diagnostic Room, except mammographic, angiographic and radiographic rooms. See Section 6.1. |
| Patient Subwaiting Area | 5.57 | 60 | 1 per each radiographic exposure room. |
| | | | |
| STAFF AND SUPPORT AREAS | | | |
| | | | |
| Provider’s Office | 11.15 | 120 | One per provider FTE programmed. |
| NCOIC/LCPO/LPO | 11.15 | 120 | 1 per clinic. |
| Clinic Conference / Classroom | 20.90 | 225 | One per clinic. |
| Litter and Wheelchair Storage | 2.32 | 25 | 1 per Diagnostic Room. |
| Clean Supply & Equipment Area | 9.29 | 100 | Minimum per department. Provide a minimum of 100 nsf or 40 nsf per diagnostic room, whichever is greater, in a combined clean supply & equipment room. Maximum of 200 nsf. |
| Soiled Utility | 11.15 | 120 | One per clinic. |
| Dedicated Radiology Janitors’ Closet | 5.57 | 60 | One for 10,000 nsf or one for radiology dept., whichever is greater. See Section 6.1. |
| Staff Radiologist | 11.15 | 120 | One per programmed FTE Radiologist. |
| Clerical | 5.57 | 60 | Minimum. 60 nsf per clerical FTE programmed. |
| Quality Assurance | 9.29 | 100 | One when FTE programmed. |
| Mammography Scheduler/Tracking Office | 9.29 | 100 | One per radiology clinic with mammography services. |
| Transcription work area | 5.57 | 100 | Minimum, if one per FTE programmed. Provide 60 nsf for each FTE if greater than one. |
| Staff Lounge | 13.01 | 140 | Minimum. Add 10 NSF per each FTE staff over 10. 200 NSF maximum. |
| Staff Locker Rooms: | | | |
| Male | 9.29 | 100 | Minimum. See Section 6.1. |
| Female | 9.29 | 100 | Minimum. See Section 6.1. |
| Staff Toilets: | | | |
| Male | 5.57 | 60 | Minimum. See Section 6.1. |
| Female | 5.57 | 60 | Minimum. See Section 6.1. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|----------|----------------|-----|-------------------------|
| | m ² | nsf | |

| | | | |
|-------------------------|--|--|--|
| DIAGNOSTIC ROOMS | | | |
|-------------------------|--|--|--|

| | | | |
|---------------------------------|-------|-----|--|
| Xray, Radiographic | 29.73 | 320 | Space per general radiology room. see formula section 5.4.6 to determine number of rooms. |
| Xray, Radiographic/Fluoroscopic | 29.73 | 320 | Per room authorized. |
| Dedicated Toilet | 5.57 | 60 | One per Radiographic/Fluoroscopic room. |
| Xray, Angiographic | 54.72 | 590 | Per room authorized. |
| Patient Prep Cubicle | 11.15 | 120 | Two per angiographic room. |
| Angiographic/Procedure Room | 83.61 | 900 | Special justification required. To be used only when the angiographic room will also be used for procedures. |
| Control Room | 9.29 | 100 | Minimum. Add 80 nsf per exposure room over one. |
| Mammographic | 11.15 | 120 | Space per mammography room. See formula section 5.4.6 to determine number of rooms. |
| Mammographic Processing Room | 10.4 | 110 | Minimum of one. One per 1-2 mammographic rooms. |
| Ultrasound | 16.72 | 180 | Space per ultrasound room. See formula section 5.4.6 to determine number of rooms. |
| Dedicated Ultrasound Toilet | 5.57 | 60 | One per ultrasound room. |

| | | | |
|----------------------------|--|--|--|
| COMPUTED TOMOGRAPHY | | | |
|----------------------------|--|--|--|

| | | | |
|-----------------------------|-------|-----|--|
| CT Scanning Room | 27.87 | 300 | Space per each scanning room. See formula section 5.4.6 to determine number of suites. |
| Control Room | 11.15 | 120 | One per scanning room. Includes computer equipment. |
| Independent Display Console | 11.15 | 120 | One per scanning room. |
| Sub-waiting | 5.57 | 60 | One per scanning room. |
| Patient Prep Cubicle | 11.15 | 120 | One per scanning room. |
| Med Prep. | 5.57 | 60 | One per scanning room. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|-----------------------------------|------------|-----|--|
| | m² | nsf | |
| MAGNETIC RESONANCE IMAGING (MRI) | | | |
| PATIENT AREAS | | | |
| Reception/ Administration | 9.29 | 100 | One per MRI suite. |
| Scanning Room | 46.46 | 500 | Space per scanning room. See formula section 5.4.6 to determine number of suites. |
| Computer Room | 13.94 | 150 | One per scanning room. |
| Control Room | 9.29 | 100 | One per scanning room. |
| Dressing Booth | 4.65 | 50 | Provide 2 booths per scanning room. |
| Sub-waiting | 5.57 | 60 | One per every two scanning room. |
| Patient Toilet | 5.57 | 60 | One per every two scanning room. |
| STAFF AND SUPPORT AREAS | | | |
| Physician's Viewing Room | 13.94 | 150 | One per MRI suite. |
| MRI Gas Storage (Cryogen Storage) | 5.57 | 60 | One per MRI suite. |
| Equipment Room | 26.01 | 280 | One per MRI suite. |
| Litter Storage Alcove | 3.72 | 40 | One per MRI suite. |
| Soiled Linen Alcove | .93 | 10 | One per MRI suite. |
| Storage | 3.72 | 40 | One per MRI suite. |
| Darkroom | 11.15 | 120 | 1 per radiology service. Includes replenisher tanks storage. Required if any conventional (film based) radiology is included. |
| Film Sorting Area | 13.94 | 150 | 1 area per darkroom. |
| Film Files/Work Area | 23.23 | 250 | Minimum of 1 per radiology service. Required if any conventional (film based) radiology is included. Add 50 nsf for each “film” exposure room in excess of four. |
| Computed Radiology Reader Area | 11.15 | 120 | 1 per radiology service with computed radiology. |
| Film Storage | 16.72 | 180 | Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater. Provide for non-digital radiology service only. |
| Digital Quality Control Station | 11.15 | 120 | 1 per radiology service using digital or computed radiology. |
| Digital Image Storage | 18.58 | 200 | 200 nsf minimum or provide 10 nsf per exposure unit. This may be located in Section 2.4: Information Management. Locate in either 2.4 or 5.4, but not in both departments. |
| Viewing/Consultation: | | | Size of viewing area is the same for film or digital viewing. |
| Non-teaching | 11.15 | 120 | Minimum. Provide one per two exposure rooms. |
| Teaching | 23.23 | 250 | Minimum or 60 NSF per exposure room, whichever is greater. |
| Tele-Radiology | 20.90 | 225 | Justification required. Add additional 100 nsf if separate computer workroom required. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|----------------|--------|---|
| | m ² | nsf | |
| <u>TEACHING SUPPORT</u> | | | Space provided only if the medical facility has an authorized radiology residency. |
| Director of Radiology Residency | 11.15 | 120 | One per director of radiology residency program. |
| Secretary to Director with visitor waiting. | 11.15 | 120 | One per Director of Radiology Residency program, if there is a programmed FTE secretary position. |
| Residency Research Technician | 11.15 | 120 | One per program, when there is a programmed FTE position. |
| Radiology Residency Coordinator | 11.15 | 120 | One per Radiology Residency Program Coordinator if there is a programmed FTE. |
| Radiology Resident's Office Space | 11.15 | 120 | Minimum. 60 nsf per programmed resident. |
| Instructor Office | 11.15 | 120 | Residency Program Required, one per FTE programmed. Residency program and/or Phase II technician teaching program required. |
| Technician Training Office | 11.15 | 120 | Residency Program Required, one per FTE programmed. Phase II training program required. |
| Teaching Files | 27.87 | 300 | Residency Program Required. |
| Residency Library | 22.29 | 240 | One per Residency Program. |
| On Call Room | 11.15 | 120 | Residency Program Required. |
| Toilet (wc, lavatory, shower). | 8.36 | 90 | Minimum. See Section 6.1. |
| Conference Room | 37.16 | 400 | One per Radiology Residency Program. Residency program and/or Phase II technician teaching program required. |
| Resident/Phase II Locker Room | | varies | See Section 6.1. Residency program and/or Phase II technician teaching program required. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOTHERAPY:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|-----|--|
| | m ² | nsf | |
| | | | |
| PATIENT AREAS | | | |
| | | | |
| Reception/Control | 13.01 | 140 | One per Radiotherapy service. |
| Waiting Room “Hot” | 11.15 | 120 | Minimum. Add 40 nsf for every Treatment room, Simulator and Therapy Planning room in excess of 3. |
| Waiting Room “Cold” | 11.15 | 120 | Minimum. Add 40 nsf for every Treatment room, Simulator and Therapy Planning room in excess of 3. |
| Examination Room | 11.15 | 120 | Minimum of 2 for up to 200 new patients per year. Add 1 room for each additional 200 new patients per year. |
| Public Toilet - Male (water closet, lavatory) | 5.57 | 60 | Minimum See Section 6.1. |
| Public Toilet - Female (water closet, lavatory) | 5.57 | 60 | Minimum See Section 6.1. |
| Sub-waiting | 7.43 | 80 | If used, subtract 80 NSF from the total waiting area for Radiation therapy area. Place adjacent to the treatment spaces. |
| Dressing Cubicle | 4.65 | 50 | 2 per treatment or simulator room. |
| Soiled Linen Alcove | .93 | 10 | 1 per examination room. |

| | | | |
|--------------------------------|-------|-----|--|
| STAFF AND SUPPORT AREAS | | | |
| Provider’s Office | 11.15 | 120 | One per provider FTE programmed. |
| NCOIC/LCPO/LPO Office(s) | 11.15 | 120 | 2 NCOIC's: one for radiation oncology and one for medical physics, if FTEs programmed. |
| Resident Offices | 11.15 | 120 | 1 per programmed trainee. |
| Staff Radiotherapists | 11.15 | 120 | 1 per radiotherapist programmed. |
| Physicist Office | 11.15 | 120 | One office per physicist FTE. |
| Nurse Manager’s Office | 11.15 | 120 | 1 per nurse manger FTE programmed. |
| Chief Technician | 11.15 | 120 | 1 per senior technician FTE programmed. |
| Clerical | 5.57 | 60 | Minimum. 60 nsf per clerical FTE programmed. |
| Dosimetrist Workroom | 27.87 | 300 | 1 per radiation therapy service if a radiation oncologist FTE programmed. |
| Radiology Safety Files | 9.29 | 100 | Minimum per radiology service. Add 20 nsf for each physicist FTE. |
| Patient Record Storage | 16.72 | 180 | Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater. |
| Equipment Storage | 11.15 | 120 | 1 per clinic. |
| Film File Room | 16.72 | 180 | One per radiation therapy service. |
| Viewing/Consultant | 16.72 | 180 | 1 per clinic. |
| Staff Lounge | 13.01 | 140 | Minimum. Add 10 NSF per FTE staff over 10. 200 NSF max. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOTHERAPY (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|----------|----------------|-----|-------------------------|
| | m ² | nsf | |

STAFF AND SUPPORT (Continued)

| | | | |
|-------------------------------|-------|--------|--|
| Staff Locker Rooms | | varies | See Section 6.1. |
| Staff Toilets | | varies | See Section 6.1. |
| Clinic Conference / Classroom | 20.90 | 225 | One per clinic. |
| Litter and Wheelchair Storage | 5.57 | 60 | One per clinic. |
| Soiled Utility | 11.15 | 120 | 1 per clinic. |
| Clean Utility | 5.57 | 60 | 1 per clinic. |
| Janitors' Closet | 5.57 | 60 | One for 10,000 nsf or one for radiotherapy dept., whichever is greater. See Section 6.1. |

| | | | |
|------------------------|--|--|--|
| TREATMENT ROOMS | | | Requires special approval. Number and type of treatment rooms will be determined on an individual basis. |
|------------------------|--|--|--|

| | | | |
|----------------------------|-------|-----|--|
| Linear Accelerator: | 55.74 | 600 | Justification required for this service. |
| Control Area | 12.08 | 130 | One per linear accelerator. |
| Entrance Maze | 13.01 | 140 | One per linear accelerator. <i>Note: Maze design may be omitted with the use of a specifically designed, shielded sliding door.</i> |
| Auxiliary Equipment Room | 12.08 | 130 | Control Area 130 Control area has same comments as above except control has more electronics and a computer CPU. |

| | | | |
|-------------------|-------|-----|--|
| Simulator: | 37.16 | 400 | Justification required for this service. |
| Control area | 10.22 | 110 | Control area needed for scanning fluoro. as well as personnel protection. Space needed for computer console and CPU. |

TREATMENT SUPPORT

| | | | |
|---------------------------|-------|-----|--|
| Treatment Planning Room | 23.23 | 250 | One per simulator service. |
| Brachytherapy Room | 11.15 | 120 | One per suite. |
| Radiologic Physics Lab | 27.87 | 300 | One per suite. |
| Film Processing | 11.15 | 120 | One per radiologic physics lab. |
| Workroom/Mold Fabrication | 20.44 | 220 | One per physics lab. |
| Image Support: | | | |
| Non-teaching | 11.15 | 120 | Minimum. Provide one per two exposure rooms. |
| Teaching | 23.23 | 250 | Minimum or 60 NSF per exposure room, whichever is greater. |
| Tele-Radiology | 20.90 | 225 | Justification required. Add additional 100 nsf if separate computer workroom required. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

NUCLEAR MEDICINE:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|------------|-----|--|
| | m² | nsf | |
| PATIENT AREAS | | | |
| Waiting Room “Hot” | 9.29 | 100 | Minimum. Add 16 nsf for each additional imaging room above six. |
| Public Toilet – Unisex (water closet, lavatory) | 5.57 | 60 | Minimum See Section 6.1. One per “Hot” waiting area. |
| Waiting Room “Cold” | 11.15 | 120 | Minimum. Add 16 nsf for each additional imaging room above six. |
| Public Toilet Unisex (water closet, lavatory) | 5.57 | 60 | Minimum See Section 6.1. One per “Cold” waiting area. |
| Patient Holding Alcove | 9.29 | 100 | 1 per clinic. |
| Dressing Cubicle | 4.65 | 50 | 1 per 4 imaging rooms. Minimum of 1 cubicle. |
| Patient toilet (wc, lav., shower) | 5.57 | 60 | 2 per clinic. Design as hot toilet. |
| SCANNING ROOMS | | | |
| General Scanning | 33.45 | 360 | Collimator cart storage included |
| Special Scanning | 37.16 | 400 | This space is adequate for dynamic cardiac studies and tomographic systems. |
| STAFF AND SUPPORT AREAS | | | |
| Provider’s Office | 11.15 | 120 | One per provider FTE programmed. |
| NCOIC/LCPO/LPO | 11.15 | 120 | 1 per clinic. |
| Resident Office | 11.15 | 120 | 1 per programmed trainee. |
| Nuclear Med. Physician Office | 11.15 | 120 | One per FTE programmed. |
| Director, Radio-immunoassay Laboratory Office | 11.15 | 120 | For labs performing over 30,000 procedures per year. |
| Physicist Office | 11.15 | 120 | 1 per clinic with 4 or more scanning rooms. |
| Radio-pharmacist Office | 11.15 | 120 | One per FTE programmed. |
| Chief Technician | 9.29 | 100 | One per clinic when FTE programmed. |
| Secretary, Visitor Waiting | 11.15 | 120 | Special justification required for more than one. |
| Clerical | 5.57 | 60 | Minimum. 60 nsf per FTE programmed. |
| Records/Film Storage | 16.72 | 180 | Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater. |
| Clinic Conference / Classroom | 13.94 | 150 | NSF minimum. or 20 per Nuclear Med. officer FTE programmed. For small clinics (less than 3 officers assigned), function could be met by adding 40 nsf to Lounge. |
| Clean Supply & Equipment Area | 9.29 | 100 | Minimum per department. Provide a minimum of 100 nsf or 40 nsf per diagnostic room, whichever is greater, in a combined clean supply & equipment room. Maximum of 200 nsf. |

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

NUCLEAR MEDICINE (Continued):

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|----------|----------------|-----|-------------------------|
| | m ² | nsf | |

STAFF AND SUPPORT AREAS (Continued)

| | | | |
|---|-------|--------|--|
| Hot locker/Dose Calibration | 9.29 | 100 | 1 per clinic. Provide only if there is no radiopharmacy in the facility. |
| Soiled Utility | 11.15 | 120 | One per clinic. |
| Equipment Storage | 18.58 | 200 | One per scanning room. |
| Staff Lounge | 13.01 | 140 | Minimum. 200 maximum. Add 10 NSF per FTE staff over 10. |
| Staff Toilets | | varies | See Section 6.1. |
| Staff Showers | | varies | Combine with toilets. See Section 6.1. |
| Staff Lockers: | | | See Section 6.1. |
| Male | 9.29 | 100 | Minimum. See Section 6.1. |
| Female | 9.29 | 100 | Minimum. See Section 6.1. |
| Litter and Wheelchair Storage | 4.65 | 50 | 1 per clinic. |
| Dedicated Nuclear Medicine Janitors' Closet | 5.57 | 60 | One for 10,000 nsf or one for Nuclear Medicine, whichever is greater. See Section 6.1. |

NUCLEAR MEDICINE SERVICES

| | | | |
|--|-------|-----|---|
| PET-CT | 41.81 | 450 | Per PET or PET-CT unit. |
| PET injection/waiting room (quiet room) | 11.15 | 120 | One per PET Service. Two reclining chairs and injection storage area. |
| PET Dedicated Lab. | 11.15 | 120 | One per PET Service. |
| Uptake Room | 15.61 | 170 | 1 per clinic |
| Radiopharmacy | 18.58 | 200 | 1 per clinic, add 100 NSF at Medical Centers. |
| Treatment Room | 13.94 | 150 | 1 per clinic. |
| Injection room/ Venipuncture/ Dosing/Specimen collection | 13.94 | 150 | 1 per clinic. |
| Decay Storage Area | 11.15 | 120 | 1 per clinic. |
| Film Sorting/ Reading | 9.29 | 100 | 1 per clinic. |
| Computer Room | 23.23 | 250 | 1 per clinic. |
| Crash Cart | 1.86 | 20 | 1 per clinic. |
| Clean Cart Holding | 1.86 | 20 | 1 per clinic. |
| Soiled Cart Holding | 1.86 | 20 | 1 per clinic. |

TREATMENT AREAS

| | | | |
|----------------|-------|-----|---------------|
| Treadmill Room | 20.44 | 220 | 1 per clinic. |
|----------------|-------|-----|---------------|

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

5.4.6. FORMULAS:

| Column A | Column B | Column C | Column D | Column E | Column F |
|---|----------------------------|------------------|-----------------------------------|---|------------------|
| Imaging Technology | Utilization Hours per Year | Studies per Hour | Ideal Number of Patients per Year | Average Military Hospital Patients per Year | Utilization Rate |
| Normal Radiography | 3,000 | 4 | 12,000 | 22,000 | 1.8 |
| Fluoroscopy | 1,250 | 1 | 1,250 | 900 | 0.8 |
| Mobiles and Portables | 2,000 | 2.5 | 5,000 | 1,300 | 1.4 |
| Ultrasound | 2,000 | 1.33 | 2,660 | 3,600 | 1.4 |
| CT | 4,992 | 2 | 9,984 | 1,800 | 0.2 |
| MRI | 4,992 | 1 | 4,992 | 600 | 0.1 |
| Lone Radiology Unit in a Free Standing Clinic | 2,000 | 1 | 2,000 | 1,300 | 0.7 |
| Gamma Cameras | N.A. | N.A. | N.A. | 1,150 studies | N.A. |

Note: the CT and MRI are based on more than the normal duty day. This assumes a minimum of two shifts per day and one on Saturday and Sunday. Straight radiology is based on more than an 8-hour day also.

Calculation Method: Select the imaging technology for which you desire to calculate the number required. Project the annual number of patient visits. Divide the annual number of visits by the appropriate number of military treatment facility visits per year (Bold Column Above, Column E). Do not round up for free standing clinics if supported by a hospital in the area. Do round up for a hospital's second or more item and if additional item is more than 50% justified. First item must be justified by attainment of 80% of desired patient visits.

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of military and contract chaplain offices and worship and meditation areas in medical facilities.

5.7.2. DEFINITIONS:

Chapel: A non-denominational gathering, worship, prayer and meditation area of one or more rooms within a medical treatment facility.

Chancel: The part of the chapel containing the alter, pulpit, lectern and seats for officiants.

Chaplain: A commissioned officer in a U.S. military service who has the mission of providing spiritual support and service to the uniformed service members, their dependents, and authorized civilians.

Meditation Room: A designated room where patients, family members and/or staff may meditate, pray or worship.

5.7.3. POLICIES:

Chapels and meditation rooms will not be programmed in dental clinics nor in veterinary clinics. Chapel areas will be programmed in all DoD hospitals and qualifying clinics.

Meditation rooms will not be programmed in free standing clinics with fewer than twenty providers.

A chaplain will not be programmed for hospitals with an average patient daily load (ADPL) of less than 20.

The Chapel is designed for inpatients, same day surgery patients, and their dependents and authorized civilians. It also may accommodate the medical facility staff.

It is the responsibility for the command to provide for the religious needs of its members. Hospital commanders are required to provide for the needs of both patients and members of the command.

Medical facility staff members and their dependents may also use the installation wide religious facility. Requirements for installation wide religious facilities are specified in MIL-HDBK-1190.

The Chapel is designed for average weekly or daily services and is not intended to accommodate special annual religious celebrations.

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.4. PROGRAM DATA REQUIRED:

Is a free standing clinic or a hospital being programmed?
 If this is a freestanding clinic, what is the projected number of providers?
 What is the projected number of chaplains or civilian contract clergy assigned to the clinic or the hospital?
 Will scheduled, weekly religious services be held in this facility?
 Is there a training program for military hospital chaplains in this facility?
 What is the maximum number of chaplains who are receiving hospital chaplain training at one time?
 What is the average number of beds occupied daily, or average patient daily load (ADPL)?

5.7.5. SPACE CRITERIA:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|-----|---|
| | m ² | nsf | |
| Meditation Room | 11.15 | 120 | One per free standing clinic greater than 20 providers or one per hospital with fewer than 20 average daily patient load (ADPL) and no full time or part time chaplain. |
| Chapel | 31.12 | 335 | Minimum. One per hospital with greater than 19 average daily patient load (ADPL), and when there is a full time or part time chaplain. See formula in para. 5.7.6. |
| Chapel Alter | 9.29 | 100 | Provide one altar in a chapel when weekly religious services are scheduled. Does not include chancel. |
| Chapel Storage | 9.29 | 100 | Provide storage in a chapel when there are weekly religious services. |
| Chancel | 9.29 | 100 | Provide one chancel per MTF. |
| Chaplain's Office (full-time chaplain) | 13.01 | 140 | One office per MTF, plus an additional office for each projected chaplain FTE |
| Chaplain's Office (part-time chaplain) | 11.15 | 120 | One office if a part-time chaplain provides counseling services. |
| Chaplain's Assistant's Office | 9.29 | 100 | One office per chaplain assistant (enlisted skill) FTE. |
| Secretary and Waiting | 11.15 | 120 | One office waiting per MTF. |
| Group Supervisor's Office | 11.15 | 120 | One office if FTE assigned. |
| NCOIC/Secretary/SIT's Office | 11.15 | 120 | One office if FTE assigned. |
| Hospital Chaplain Trainee Office | 9.29 | 100 | Minimum, if there is one chaplain in training. Add 60 nsf for each additional chaplain in the training program. |
| Counseling Room | 13.01 | 140 | One per every three chaplains in a hospital chaplain training program. |
| CPE Training Center | 13.01 | 140 | Note: SEPS to verify. |
| CPE Group Library | 13.01 | 140 | Note: SEPS to verify. |

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.6. FORMULAS*:

| Average Daily Patient Load (ADPL) | Number of Seats Provided |
|--|--|
| 0 - 19 | 0 (No chapel) |
| 20 - 40 | 30 |
| 41 - 45 | 35 |
| 46 - 50 | 40 |
| 51 - 60 | 45 |
| 61 - 70 | 50 |
| 71 - 80 | 55 |
| 81 - 90 | 60 |
| 91 - 100 | 65 |
| > 100 | 3 additional seats for each additional 10 ADPL. 100 seats maximum. |
| * This formula can be modified, based on actual historical workload. | |

Chapel Area = 10.5 nsf per seat X 0.95 X No. of Seats, plus 20 nsf per seat X 0.05 X No. of Seats.

- Step 1. Project the Average Daily Patient Load (average daily beds occupied). Use the most recent annual workload data.
- Step 2. Use the table above to determine number of seats to be provided. Round up to the nearest 5 seats for hospitals with greater than 100 ADPL.
- Step 3. Insert the number of seats into the formula to calculate the chapel area.

Note: The 10.5 nsf is the space for a normal seat (95% of all seats).
The 20 nsf is for a “handicapped” seat (5% of all seats).

DoD Space Planning Criteria for Health Facilities

Patient Services

5.8.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of general patient services in medical facilities.

5.8.2. DEFINITIONS:

Automated Teller Machine (ATM): An automated machine where patrons can withdraw money from their account. Typically associated with a specific bank that has a contract on the base or post to provide this banking service.

Exchange Service: Retail outlets and services shops operated directly by, or under contract to, the exchange service of either the Army, Air Forces or by the Navy.

Entry: The door(s) and the exterior portion of the access to a medical treatment facility. This will include a covering to shelter people from the weather while waiting for vehicle pick-up.

Lobby: The anteroom of the building through which most visitors/patients enter and depart the medical treatment facility. American Institute of Architects' Guideline for Design and Construction of Hospital and Health Care Facilities, require that lobbies include: a counter or desk for reception and information, public waiting area(s), public toilet facilities, public telephones and drinking fountain(s).

Vestibule: A passageway connecting the outside to the interior of the building. This is intended to provide a transition from the exterior to the interior and visa versa. This is also intended to provide a buffer from wind and weather.

5.8.3. POLICIES:

Each medical treatment facility will have covered entries where patients are intended to enter the facility.

Each medical treatment facility will have vestibules at patient entries.

5.8.4. PROGRAM DATA REQUIRED:

- Is a freestanding clinic or a hospital being programmed?
- If this is a freestanding clinic, what is the projected number of providers?
- How many patient advocate FTE's are there?
- Will there be an Exchange Retail Store in the facility?
- Will there be a Flower Shop in the facility?
- Will there be a coffee or fast food shop in the facility?
- Will there be an ATM Machine in the facility?
- How many barbers are projected to be working in this facility?
- How many beauticians are projected to be working in this facility?
- How many volunteers are projected?
- What is the maximum number of volunteers on duty at one time?
- How many health care providers are projected to be working in this facility?

DoD Space Planning Criteria for Health Facilities

Patient Services

5.8.5. SPACE CRITERIA:

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|---|------------|-----|---|
| | m² | nsf | |
| Patient Areas | | | |
| Patient Advocate Waiting Area | 7.43 | 80 | 80 nsf minimum, add and additional 40 nsf for each advocate FTE over one. |
| Patient Advocate’s Office | 11.15 | 120 | One office per patient advocate FTE. |
| Exchange Retail Store (Gift Shop) | 37.16 | 400 | One per hospital if AAFES/NES agrees to provide. More space can be programmed if agreement is reached with the Army and Air Force Exchange Service or the Navy Exchange Service. |
| Food Service Vendor Space (Coffee or Fast Food Shop) | 33.45 | 360 | One per hospital if AAFES/NES agrees to provide. More space can be programmed if agreement is reached with the Army and Air Force Exchange Service or the Navy Exchange Service. |
| Flower Shop | 7.43 | 80 | One per hospital when there is contract for this service projected. |
| Vending Machine Area | 1.86 | 20 | 20 nsf per vending machine area. Minimum one. One vending machine per 15,000 nsf of clinic space. One vending machine per 10,000 nsf of hospital clinic space. Note: Vending machine may be consolidated in one area, or may be decentralized for more convenient customer access. |
| ATM Machine | 3.72 | 40 | One when a contract for this service is projected. |
| Barber Shop | 11.15 | 120 | Minimum One barber shop per hospital when a contract for this service is projected. Minimum of 120 nsf for a one chair barber shop, add 60 nsf for each additional chair. Determine the number of chair based on barber contract. |
| Beauty Shop | 11.15 | 120 | Minimum. One beauty shop per hospital when a contract for this service is projected. Minimum of 120 nsf for a one beautician, add 60 nsf for each additional beautician. Determine the number of beauticians based on the contract for beauty shop services. |

DoD Space Planning Criteria for Health Facilities

Patient Services

| FUNCTION | AUTHORIZED | | PLANNING RANGE/COMMENTS |
|--|----------------|--------|---|
| | m ² | nsf | |
| American Red Cross | | | |
| Red Cross Director | 13.01 | 140 | One when Red Cross Director assigned. |
| Secretary to the RC Director | 11.15 | 120 | One when secretary FTE documented, space for secretary and visitor waiting. |
| Volunteers' Lounge | 9.29 | 100 | Minimum. 100 nsf, provide 10 nsf for every projected volunteer on duty at one time in excess of ten. |
| Volunteers' Locker Room: | | | |
| Male locker room | 9.29 | 100 | Minimum. Provide 7 nsf for every projected volunteer on duty at one time in excess of ten. |
| Female locker room | 9.29 | 100 | Minimum. Provide 7 nsf for every projected volunteer on duty at one time in excess of ten. |
| Medical Treatment Facility Entries (from the exterior) | | | Covered (sheltered) entries shall be provided on the exterior of a building and their net square foot is calculated as "half space." |
| Exterior Clinic Entries | 4.65 | 50 | Provide 100 square feet of covered entry on the exterior of the entry to a free standing clinic. |
| Exterior Hospital Entries | 9.29 | 100 | Provide 200 square feet for each of the following hospital entries: Ambulatory or clinic entry X 2, hospitalized patient entry, staff entry (four entries). |
| Lobbies | | | The lobby area includes public telephones, water fountain(s), wheelchair storage alcove, and building directories. |
| Free Standing Clinic Lobby | 18.58 | 200 | Minimum 200 nsf. 4 nsf per provider projected. This area is also listed in Section 3.1, paragraph 3.1.5: do not list twice. |
| Hospital Lobby | | varies | 2 nsf per provider projected, maximum of 800 nsf |
| Information Desk | 5.57 | 60 | One per free standing clinic with more than 15 providers and one FTE to staff the desk projected. Two per hospital, one for the clinic entry and one for the inpatient visitor entry, when FTE staffing is projected for two desks. |
| Lobby Vestibule | 5.57 | 60 | One per lobby. |